



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW814GA BYPASS RATIO: 5.7  
 UNIQUE ID NUMBER: 01P22PW141 PRESSURE RATIO ( $\pi_{00}$ ): 33.6  
 COMBUSTOR: TALON X  
 ENGINE TYPE: MTF RATED THRUST ( $F_{00}$ ) (kN): 68.6

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.2	29.5	46.5	0.3
AS % OF ORIGINAL LIMIT	0.8	25.0	43.4	1.3
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			54.2	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			59.7	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			64.1	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			71.2	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 x REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 - OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.672	0.05	0.01	22.21	0.3
CLIMB OUT	85	2.2	0.556	0.04	0.00	18.01	0.2
APPROACH	30	4.0	0.198	0.03	2.48	11.20	0.2
IDLE	7	26.0	0.070	0.07	16.67	5.34	0.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			258	13	1929	3061	-
NUMBER OF ENGINES				5	5	5	5
NUMBER OF TESTS				9	9	9	9
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.2	27.8	44.5	0.3
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.2	3.5	2.2	0.1
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0-0.3	23.3-31.7	40.8-46.3	0.2-0.5

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.1-101.7
TEMPERATURE (K)	253-303
ABS HUMIDITY (kg/kg)	0.0005-0.0149

### FUEL

SPEC	Jet A-1
H/C	1.89-1.91
AROM (%)	15.6-20.1

MANUFACTURER: Pratt & Whitney Canada  
 TEST ORGANIZATION: PW800 Development Engineering, Production  
 TEST LOCATION: Longueuil & Mirabel, Quebec, Canada  
 TEST DATES: 23/06/2014-18/07/2019

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

### REMARKS

- P&WC ER 7572 Rev. D, includes CO-0003044 and CO-0005972.
- Engines tested: 5738B01, GA0008B01, GA0009B01, GA0011B01, GA0020B19.
- Export classification: EIPA NSR, DPA No, US-I 9E991, OUS-I NSR.

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)